

Technical Data Data Sheet N2213, REV.-





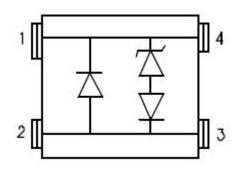
S43LC0403 THRU S43LC0436 TVS ARRAY



Description

The S43LCXX series of TVS array have been designed to provide unidirectional protection for sensitive electronics from damage due to voltage transients caused by electrostatic discharge (ESD), electrical fast transients (EFT), secondary lightning and other voltage-induced transient events. The device can be used to protect 1 bidirectional or interface line.

Schematic & Pin Configuration



Features

- Protects 3.3,5,12,15,24,36 V Components
- Unidirectional
- Ultra Low Capacitance 8 pF
- Ultra Low Leakage
- Provides Electrically Isolated Protection
- 500 W @ 8/20 us
- Protects 1 Line
- SOT-143 Packaging
- Terminals finish: 100% Pure Tin
- This is a Pb Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

Mechanical Characteristics

- SOT-143 Surface Mount Package
- Approximate Weight: 0.03 grams
- PIN #1 Indicator: DOT on top of package
- Packaging: Tape and Reel Per EIA 481

Application

- LAN/WAN Equipment
- Cellular Phone
- Notebooks, Desktops, & Servers
- Audio/Video Inputs
- Handheld Electronics
- Fire Wire, SCSI & USB interfaces

Maximum Ratings@TA=25°C unless otherwise specified

Parameter	Symbol	Value	Units
Peak Pulse Power, 8/20 µs Wave shape	Р	500	W
Operating Temperature	TJ	-55 to +125	°C
Storage Temperature	T _{stg}	-55 to +150	°C
Lead Soldering Temperature	TL	260 (10 Sec.)	°C

- China Germany Korea Singapore United States
 - http://www.smc-diodes.com sales@ smc-diodes.com •



Technical Data
Data Sheet N2213, REV.-

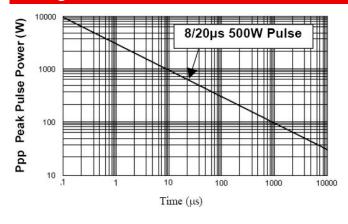




Electrical Characteristics@TA=25°C unless otherwise specified

Part Number	Marking Code	Stand-off Voltage Vwm (V) Max	Breakdown Voltage V _{BR} @1mA (V) Min	Clamping Voltage Vc @ 1 A (V) Max	Leakage Current I _R @ Vwm (uA) Max	Capacitance (f = 1MHz) C @ 0V (pF) Max
S43LC0403	AA	3.3	4	8	200	8
S43LC0405	AB	5	6	10.8	20	8
S43LC0412	AC	12	13.3	19	1	8
S43LC0415	AD	15	16.7	24	1	8
S43LC0424	AE	24	26.7	43	1	8
S43LC0436	AF	36	40	51	1	8

Ratings and Characteristics Curves



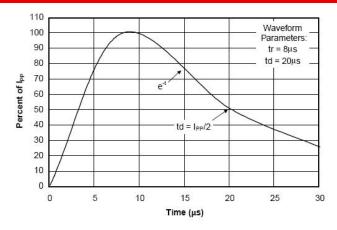


Figure 1. Peak Pulse Power Vs Pulse Time (µs)

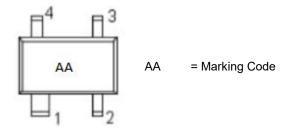
Figure 2. Pulse Wave Form

Ordering Information

Device	Package	Shipping
S43LC0403 THRU S43LC0436	SOT-143 (Pb-Free)	3000pcs / reel
S43LC0403TR THRU S43LC0436TR	SOT-143 (Pb-Free)	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

Marking Diagram



- China Germany Korea Singapore United States
 - http://www.smc-diodes.com sales@ smc-diodes.com •

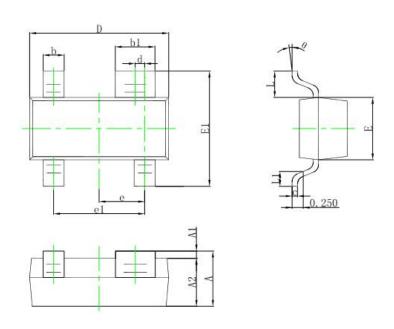


Technical Data Data Sheet N2213, REV.-



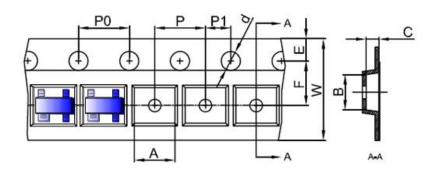


Mechanical Dimensions SOT-143



CVMDOL	Millimeters		Inches		
SYMBOL	MIN.	MAX.	MIN.	MAX.	
Α	0.890	1.150	0.035	0.045	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.050	0.035	0.041	
b	0.300	0.500	0.012	0.020	
С	0.076	0.170	0.003	0.007	
D	2.650	3.050	0.104	0.120	
Е	1.190	1.400	0.047	0.055	
E1	2.100	2.550	0.083	0.100	
е	0.950 TYP.		0.037 TYP.		
e1	1.780	2.050	0.070	0.081	
L	0.550 REF.		0.022 REF.		
L1	0.300	0.500	0.012	0.020	
θ	0°	8°	0°	8°	

Carrier Tape Specification SOT-143



SYMBOL	Millimeters			
STWIBOL	Min.	Max.		
Α	3.09	3.29		
В	2.70	2.90		
С	1.21	1.41		
d	1.40	1.60		
E	1.65	1.85		
F	3.40	3.60		
Р	3.90	4.10		
P0	3.90	4.10		
P1	1.90	2.10		
W	7.90	8.10		



S43LC0403 THRU S43LC0436

Technical Data Data Sheet N2213, REV.-





DISCLAIMER:

- 1- The information given herein, including the specifications and dimensions, is subject to change without prior notice to improve product characteristics. Before ordering, purchasers are advised to contact the SMC Diode Solutions sales department for the latest version of the datasheet(s).
- 2- In cases where extremely high reliability is required (such as use in nuclear power control, aerospace and aviation, traffic equipment, medical equipment, and safety equipment), safety should be ensured by using semiconductor devices that feature assured safety or by means of users' fail-safe precautions or other arrangement.
- 3- In no event shall SMC Diode Solutions be liable for any damages that may result from an accident or any other cause during operation of the user's units according to the datasheet(s). SMC Diode Solution assumes no responsibility for any intellectual property claims or any other problems that may result from applications of information, products or circuits described in the datasheets.
- 4- In no event shall SMC Diode Solutions be liable for any failure in a semiconductor device or any secondary damage resulting from use at a value exceeding the absolute maximum rating.
- 5- No license is granted by the datasheet(s) under any patents or other rights of any third party or SMC Diode Solutions.
- 6- The datasheet(s) may not be reproduced or duplicated, in any form, in whole or part, without the expressed written permission of SMC Diode Solutions.
- 7- The products (technologies) described in the datasheet(s) are not to be provided to any party whose purpose in their application will hinder maintenance of international peace and safety nor are they to be applied to that purpose by their direct purchasers or any third party. When exporting these products (technologies), the necessary procedures are to be taken in accordance with related laws and regulations..